

IN THE CLAIMS

Claims 1 to 21 (canceled).

22. (Currently Amended) A multiaxial antenna chip, comprising:
a generally cross-shaped core, which includes an X-axis arm portion and an Y-axis arm portion extending perpendicular to each other;
an X-axis coil portion provided about the X-axis arm portion;
an Y-axis coil portion provided about the Y-axis arm portion; and
a Z-axis coil portion provided about a Z-axis that extends perpendicular to the X-axis arm portion and the Y-axis arm portion; and
a casing defining an accommodating concave portion, wherein the accommodating concave portion has a shape corresponding to that of the core, wherein the accommodating concave portion accommodates the core equipped with the coil portions such that the core is positioned in the accommodating concave portion,
wherein the casing has a winding concave portion formed at its periphery, the Z-axis coil portion being wound about the casing and being received in the winding concave portion.

23. (Currently Amended) The multiaxial antenna chip according to claim 44[[22]], further comprising a Z-axis coil portion provided about a Z-axis that extends perpendicular to the X-axis arm portion and the Y-axis arm portion.

24. (Previously Presented) The multiaxial antenna chip according to claim 23, wherein the Z-axis coil portion is accommodated in the accommodating concave portion.

25. (Previously Presented) The multiaxial antenna chip according to claim 24, wherein the Z-axis coil portion is displaced from the core in relation to a direction of the Z-axis.

26. (Previously Presented) The multiaxial antenna chip according to claim 23, wherein the Z-axis coil portion is wound about the casing.

27. (Previously Presented) The multiaxial antenna chip according to claim 26, wherein the casing has a winding concave portion at its periphery for receiving the Z-axis coil portion.

28. (Currently Amended) The multiaxial antenna chip according to claim 22[[26]], wherein the casing is shaped generally like a cross and has four radially outer tips, wherein the Z-axis coil portion is formed by winding an electric wire along lines that are parallel to lines passing through the tips of the casing.

29. (Currently Amended) The multiaxial antenna chip according to claim 28, wherein the casing includes caps provided at the four tips, each cap having the[[a]] winding concave portion ~~for receiving the Z-axis coil portion~~.

30. (Currently Amended) The multiaxial antenna chip according to claim 22, wherein the casing is shaped generally like a square ~~rectangle~~, wherein the core is accommodated in the accommodating concave portion so that the X-axis arm portion and the Y-axis arm portion extend along the diagonal lines of the casing, each diagonal line joining opposite corners of the square casing.

31. (Previously Presented) The multiaxial antenna chip according to claim 22, further comprising a plurality of contacts, which are insert-molded in the casing or are pressed in a through-hole formed in the casing, each contact being connected to one of the coil portions, wherein the contacts extend through, and are fixed to, a circuit board on which the multiaxial antenna chip is mounted.

32. (Previously Presented) The multiaxial antenna chip according to claim 22, further comprising a claw portion, wherein the claw portion extends through, and is engaged with, a circuit board on which the multiaxial antenna chip is mounted.

33. (Previously Presented) The multiaxial antenna chip according to claim 22, wherein the core includes an X-axis core piece and a Y-axis core piece, wherein the core pieces extend perpendicular to each other and are laid on top of each other, and wherein the X-axis core piece includes the X-axis arm portion, and the Y-axis core piece includes the Y-axis arm portion.

34. (Previously Presented) The multiaxial antenna chip according to claim 33, wherein the core pieces are laid on top of each other such that portions of the core pieces that are not laid on top of each other are in the same plane.

35. (Previously Presented) The multiaxial antenna chip according to claim 33, wherein at least one of the core pieces has a concave portion at a section that is laid on top of the other core piece, wherein the other core piece is engaged with the concave portion.

36. (Previously Presented) The multiaxial antenna chip according to claim 33, wherein at least one of the core pieces is bent such that a section that is laid on top of the other core piece is displaced relative to the remainder of the bent core piece in a direction away from the other core piece.

37. (Previously Presented) The multiaxial antenna chip according to claim 33, wherein the X-axis coil portion is provided only in a section of the X-axis core piece that is not laid on top of the Y-axis core piece, and wherein the Y-axis coil portion is provided only in a section of the Y-axis core piece that is not laid on top of the X-axis core piece.

38. (Previously Presented) The multiaxial antenna chip according to claim 33, wherein the X-axis coil portion is provided both in a section of the X-axis core piece that is laid on top of the Y-axis core piece and in a section of the X-axis core piece that is not laid on top of the Y-axis core piece, and wherein the Y-axis coil portion is provided both in a section of the Y-axis core piece that is laid on top of the X-axis core piece and in a section of the Y-axis core piece that is not laid on top of the X-axis core piece.

39. (Previously Presented) The multiaxial antenna chip according to claim 22, wherein the X-axis arm portion is a pair of X-axis arm portions that extend in opposite directions from a center of the core, wherein the Y-axis arm portion is a pair of Y-axis arm portions that extend in opposite directions from the center of the core, wherein the X-axis coil portion is a pair of X-axis coil portions, each corresponding to one of the X-axis arm portions, and wherein the Y-axis coil portion is a pair of Y-axis coil portions, each corresponding to one of the Y-axis arm portions.

40. (Previously Presented) The multiaxial antenna chip according to claim 22, wherein the core is flexible.

41. (Previously Presented) The multiaxial antenna chip according to claim 40, wherein the core is constructed by stacking a plurality of flexible sheets.

42. (Previously Presented) The multiaxial antenna chip according to claim 22, wherein the casing is made of a synthetic resin.

43. (Previously Presented) The multiaxial antenna chip according to claim 22, wherein the accommodating concave portion has an opening, the opening being covered with a cover.

44. (Currently Amended) A multiaxial antenna chip, comprising:
a generally cross-shaped core, which includes an X-axis arm portion and an Y-axis arm portion extending perpendicular to each other;
an X-axis coil portion provided about the X-axis arm portion;
an Y-axis coil portion provided about the Y-axis arm portion; and
a casing defining an accommodating concave portion, wherein the casing is shaped generally like a square rectangle, wherein the core equipped with the coil portions is accommodated in the accommodating concave portion so that the X-axis

arm portion and the Y-axis arm portion extend along ~~[[the]]~~ diagonal lines of the casing,
each diagonal line joining opposite corners of the square casing.